

WHAT IS CLAIMED IS:

1. A multi-accessory vehicle audio system comprising:
a plurality of vehicle audio accessories, the vehicle audio accessories
generating a corresponding plurality of audio signals; and
5 an audio switching device comprising
an input section for receiving the audio signals from the vehicle audio
accessories,
a switching section operatively coupled to the input section for
receiving the audio signals,
10 a controller operatively coupled to the input section for receiving the
audio signals and operatively coupled to the switching section for providing control
signals to control the switching section and to regulate the output of the audio
signals from the switching section according to an instruction set, and
15 an output section operatively coupled to the switching section for
receiving the regulated audio signals outputted from the switching section.
2. A multi-accessory vehicle audio system as recited in claim 1, wherein
the vehicle audio accessories comprise a music source.
3. A multi-accessory vehicle audio system as recited in claim 1, wherein
the vehicle audio accessories comprise a first level music source and a second level
20 music source.
4. A multi-accessory vehicle audio system as recited in claim 1, wherein
the vehicle audio accessories comprise a microphone.

5. A multi-accessory vehicle audio system as recited in claim 1, wherein the vehicle audio accessories comprise a headset microphone.

6. A multi-accessory vehicle audio system as recited in claim 1, wherein the vehicle audio accessories comprise a pair of headset microphones.

5 7. A multi-accessory vehicle audio system as recited in claim 1, wherein the vehicle audio accessories comprise a wireless communications device.

8. A multi-accessory vehicle audio system as recited in claim 1, wherein the vehicle audio accessories comprise a general mobile communications device.

9. A multi-accessory vehicle audio system as recited in claim 1, wherein the vehicle audio accessories comprise a radar detection system.

10. A multi-accessory vehicle audio system as recited in claim 1, wherein: the vehicle accessories comprise a first level music source and a second level music source; and

the input section comprises a switch for switching between the first and second music sources.

11. A multi-accessory vehicle audio system as recited in claim 1, wherein: the vehicle audio accessories comprise a general mobile communications device having a general mobile communications device audio signal and a citizen's band radio having a citizen's band radio audio signal; and

the input section includes coupling circuitry for combining the general mobile communications device audio signal and the citizen's band radio audio signal.

12. A multi-accessory vehicle audio system as recited in claim 1, wherein:
the vehicle audio accessories comprise a geographic designation system
having a geographic designation system audio signal and a radar detection system
having a radar detection system audio signal; and

5 the input section includes coupling circuitry for combining the geographic
designation system audio signal and the radar detection audio signal.

13. A multi-accessory vehicle audio system as recited in claim 1, wherein
the input section includes signal leveling circuitry for leveling the audio signals
with respect to one another.

14. A multi-accessory vehicle audio system as recited in claim 1, wherein
the switching section comprises a plurality of switches.

15. A multi-accessory vehicle audio system as recited in claim 1, wherein
the switching section comprises a plurality of analog switches.

16. A multi-accessory vehicle audio system as recited in claim 1, wherein
the controller comprises a programmable controller chip.

17. A multi-accessory vehicle audio system as recited in claim 1, wherein:
the vehicle audio accessories comprise a microphone having a microphone
audio signal; and

the instruction set comprises an instruction for controlling the switching
20 section in response to the microphone audio signal.

18. (Low Pass Filter in Mic Path) A multi-accessory vehicle audio system
as recited in claim 1, wherein:

the vehicle audio accessories comprise a microphone having a microphone audio signal;

the input section comprises a microphone audio signal path and a low pass filter in the microphone audio signal path, the low pass filter having a low pass filter output;

the instruction set comprising an instruction for comparing the microphone audio signal with the low pass filter output to obtain a voice difference signal and an instruction for controlling the switching section in response to the voice difference signal.

19. A multi-accessory vehicle audio system as recited in claim 1, wherein the output section comprises a pair of speakers.

20. A vehicle audio system switching device for switching a plurality of vehicle audio accessories, the vehicle audio accessories generating a corresponding plurality of audio signals, the vehicle audio system switching device comprising:

an input section for receiving the audio signals from the vehicle audio accessories;

a switching section operatively coupled to the input section for receiving the audio signals

a controller operatively coupled to the input section for receiving the audio signals and operatively coupled to the switching section for providing control signals to control the switching section and to regulate the output of the audio signals from the switching section according to an instruction set; and

an output section operatively coupled to the switching section for receiving the regulated audio signals outputted from the switching section.

21. A vehicle audio system switching device as recited in claim 20, wherein:

5 the vehicle accessories comprise a first level music source and a second level music source; and

the input section includes a switch for switching between the first and second music sources.

22. A vehicle audio system switching device as recited in claim 20, wherein:

10 the vehicle audio accessories comprise a general mobile communications device having a general mobile communications device audio signal and a citizen's band radio having a citizen's band radio audio signal; and

15 the input section includes coupling circuitry for combining the general mobile communications device audio signal and the citizen's band radio audio signal.

23. A vehicle audio system switching device as recited in claim 20, wherein:

the vehicle audio accessories comprise a geographic designation system having a geographic designation system audio signal and a radar detection system having a radar detection system audio signal; and

20 the input section includes coupling circuitry for combining the geographic designation system audio signal and the radar detection audio signal.

24. A vehicle audio system switching device as recited in claim 20, wherein the input section includes signal leveling circuitry for leveling the audio signals with respect to one another.

25. A vehicle audio system switching device as recited in claim 20, wherein the switching section comprises a plurality of switches.

26. A vehicle audio system switching device as recited in claim 20, wherein the switching section comprises a plurality of analog switches.

27. A vehicle audio system switching device as recited in claim 20, wherein the controller comprises a programmable controller chip.

28. A vehicle audio system switching device as recited in claim 20, wherein:

the vehicle audio accessories comprise a microphone having a microphone audio signal; and

the instruction set comprises an instruction for controlling the switching section in response to the microphone audio signal.

29. A vehicle audio system switching device as recited in claim 20, wherein:

the vehicle audio accessories comprise a microphone having a microphone audio signal;

the input section comprises a microphone audio signal path and a low pass filter in the microphone audio signal path, the low pass filter having a low pass filter output;

the instruction set comprising an instruction for comparing the microphone audio signal with the low pass filter output to obtain a voice difference signal and an instruction for controlling the switching section in response to the voice difference signal.

5 30. A vehicle audio system switching device as recited in claim 20, wherein the output section comprises a pair of speakers.

31. A method for switching signals in a multi-accessory vehicle audio system having a plurality of vehicle audio accessories, the vehicle audio accessories generating a corresponding plurality of audio signals; the method comprising:

10 inputting the audio signals into a switching section;

 inputting the audio signals into a controller operatively coupled to the switching section and providing control signals from the controller to the switching section to control the switching section and to regulate the output of the audio signals from the switching section according to an instruction set; and

15 outputting the audio signals from the switching section.

32. A method as recited in claim 31, wherein:

 the vehicle accessories comprise a first level music source and a second level music source; and

 the method comprises switching between the first and second music sources.

20 33. A method as recited in claim 31, wherein:

 the vehicle audio accessories comprise a general mobile communications device having a general mobile communications device audio signal and a citizen's band radio having a citizen's band radio audio signal; and

the method comprises combining the general mobile communications device audio signal and the citizen's band radio audio signal.

34. A method as recited in claim 31, wherein:

the vehicle audio accessories comprise a geographic designation system having a geographic designation system audio signal and a radar detection system having a radar detection system audio signal; and

the method comprises combining the geographic designation system audio signal and the radar detection audio signal.

35. A method as recited in claim 31, further including leveling the audio signals with respect to one another.

36. A method as recited in claim 31, wherein:

the vehicle audio accessories comprise a microphone having a microphone audio signal; and

the method comprises controlling the switching section in response to the microphone audio signal.

37. A method as recited in claim 31, wherein:

the vehicle audio accessories comprise a microphone having a microphone audio signal; and

the method further includes passing the microphone audio signal path through a low pass filter to obtain a low pass filter output, comparing the microphone audio signal with the low pass filter output to obtain a voice difference signal, and controlling the switching section in response to the voice difference signal.